to said control transistor switch, thus activating ON operation of said control transistor switch and bypass transistor switch; and

changes in operation conditions of said oscillation circuit by said ON operation temporally increase electric current that flows in said piezo resonator to forcibly vibrate said piezo resonator, thus making start-up of said piezo oscillator faster.

47. The piezo oscillator according to claim 45, wherein

said quick start-up circuit is structured so that

a single NPN transistor that is used for both said bypass transistor switch and said control transistor switch is connected, in forward polarity, between said power supply voltage Vcc line and one terminal of said piezo resonator, and

said capacitor is provided between said power supply voltage Vcc line and a base of said NPN transistor; and wherein

a start-up quickening voltage is applied, for said predetermined length of time, to said piezo resonator from said power supply voltage Vcc line via said NPN transistor, thus temporarily increasing electric current that flows in said piezo resonator to forcibly vibrate said piezo resonator, and making start-up of said piezo faster.

48. The piezo oscillator according to claim 45, wherein

said quick start-up circuit is comprised of a first NPN transistor, which is said bypass transistor, and a second NPN transistor which, is said control transistor, and is structured so that:

said first NPN transistor is connected, in forward polarity, between said power supply voltage Vcc line and one terminal of said piezo resonator,

a resister is inserted and connected between a base and an emitter of said first NPN transistor,

said NPN transistor is connected, in forward polarity, between said power supply voltage Vcc line and a base of said first NPN transistor, and

said capacitor is inserted and connected between said power supply voltage Vcc line and a base of said second NPN transistor; and wherein

a start-up quickening voltage is applied, for a predetermined length of time after application of said power supply voltage Vcc, to said piezo resonator from said power supply voltage Vcc line via said NPN transistor, thus temporarily increasing electric current that flows in said piezo resonator so as to forcibly vibrate said piezo resonator, and making start-up of said piezo oscillator faster.

49. The piezo oscillator according to claim 45, wherein according to rise of voltage of said power supply voltage Vcc and for a predetermined length of time after application of said power supply voltage Vcc, said quick start-up circuit outputs start-up quickening voltage that has steeper rise characteristics than the rise characteristics of said power supply voltage Vcc,.

50. The piezo oscillator according to claim 45, wherein

said amplifying circuit contains an oscillating transistor and a collector resistor for said oscillating transistor,

said collector resister is inserted and connected between collector and emitter of said bypass transistor switch in said quick start-up circuit,

a base of said control transistor switch and said power supply voltage Vcc line are connected via said capacitor, and

a collector of said control transistor switch and a base of said bypass transistor switch are connected; and wherein

with a control of an ON/OFF operation of said control transistor switch according to a charge current of said capacitor, terminals of collector resister of said oscillating transistor are connected by said bypass transistor switch for a predetermined length of time after application of power supply voltage Vcc so as to increase collector current, thus temporarily increasing electric current that flows in said piezo resonator so as to forcibly vibrate said piezo resonator and to shorten start-up time of said piezo oscillator, and after said predetermined length of time, a control by said quick start-up circuit is stopped and collector current of said oscillating transistor switch is lowered to a desired level.

51. The piezo oscillator according to claim 45, wherein